

WHAT IS CLAIMED IS:

1. A high speed embossing and adhesive printing process, said process comprising the steps of:
 - (a) applying an adhesive to a conformable heated glue application roll;
 - (b) applying said adhesive to a first patterned embossing roll, having an outer surface, which is engaged with a second patterned embossing roll having a complementary pattern to said first embossing roll;
 - (c) passing a web of sheet material between said first and second embossing rolls at a tangential line speed to simultaneously emboss said web and apply said adhesive to said web, such that said adhesive forms an adhesive pattern between embossments; and
 - (d) applying a renewable release agent to the outer surface of the first patterned embossing roll.
2. The process of Claim 1, further comprising the steps of:
 - (a) applying an adhesive to a roll;
 - (b) milling said adhesive to a reduced thickness through a series of metering gaps between a plurality of adjacent glue rolls; and
 - (c) applying said adhesive to said conformable glue application roll.
3. The process of Claim 1, further comprising the steps of:
 - (a) transferring said web from said second embossing roll to said first embossing roll; and
 - (b) stripping said web from said first embossing roll.
4. The process of Claim 1, further comprising the step of cooling said web after said embossing step.
5. The process of Claim 1, wherein said adhesive is a hot melt adhesive.
6. The process of Claim 1, wherein said rolls are heated.
7. The process of Claim 1, further comprising the steps of:
 - (a) applying an adhesive to a roll rotating at an initial tangential speed;

- (b) milling said adhesive to a reduced thickness and accelerating said adhesive through a series of metering gaps between a plurality of adjacent glue rolls; and
 - (c) applying said adhesive to said conformable glue application roll rotating at said tangential line speed which is higher than said initial tangential speed.
- 8. The process of Claim 1, wherein said adhesive is extruded from a heated slot die.
- 9. The process of Claim 1, wherein said first patterned embossing roll is a female embossing roll and said second patterned embossing roll is a male embossing roll.
- 10. The process of Claim 1, wherein the application of the renewable release agent is done by a sprayer.